

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 82.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017429**Date Inspected:** 08-Oct-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Westmont Industries**Location:** Santa Fe Springs, CA.**CWI Name:** R. Rodriguez, R. Dominguez**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Travelers**Summary of Items Observed:**

The Quality Assurance Inspector Sean Vance arrived on site at Westmont Industries (WMI) in Santa Fe Springs, CA, to randomly observe the in process welding of the Travelers. The QA Inspector arrived on site to randomly observe the WMI Quality Control (QC) Inspectors in process and completed visual and nondestructive testing. Upon the arrival of the QA Inspector, the following observations were made:

Trolley Test Stand

On this date, the QA Inspector observed Westmont Industries (WMI), production welder Jose Rodriguez (WID # 3031) continuing to perform Flux Core Arc Welding (FCAW) activities, for the Trolley Test Stand. The QA Inspector observed that Mr. Rodriguez was performing the FCAW in the 2F (horizontal) position and the fit up appeared to be a T joint, with an 8 mm fillet weld reinforcement, per the approved shop drawings. The QA Inspector observed that the FCAW was being performed on the piece mark identified as Rail X flange to web plate, per the shop drawing # WMI-TTC-4. The QA Inspector then utilized a Bridge Cam Gauge to measure a section of this completed weld and the fillet weld reinforcement appeared to be 10 mm.

The QA Inspector observed WMI production welder, Mr. Larry Swanson and a helper continuing to performing fitting activities for the Trolley Test Stand. The QA Inspector observed that the activities were being performed on the piece mark, identified as Rail Y web plate splice. The QA Inspector observed that Mr. Swanson was utilizing a mechanical hand held grinder to bevel the end of the web plate. The QA Inspector then referenced the nearby shop drawings and observed that the joint preparation is designated as a Complete Join Penetration (CJP) 45-degree double bevel, per the drawings. The QA Inspector spoke with Mr. Swanson and Mr. Swanson explained that he will be performing the tack welding on this weld joint and once the joint is tack welded, WMI production welder Jose Rodriguez will probably be performing the Flux Core Arc Welding (FCAW) at a later date.

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SAS-EB Traveler

Elevated Truss Section

On this date, the QA Inspector observed Westmont Industries (WMI) production welders Daniel Grayum (WID # 3049) and Juan Jimenez (WID # 3059) continuing to perform Flux Core Arc Welding (FCAW) activities for the E2/E3-EB Traveler. The QA Inspector observed that the FCAW in various positions and the FCAW was being performed on the previously tack welded frame assemblies identified as A214, A216, A235 and B235. The QA Inspector observed that these welds are identified as fillet and flare groove and these frame assemblies are designated as assemblies for the fabrication of the Elevated Truss Section of the Traveler, per the approved Shop Drawings. The QA Inspector observed that the FCAW was being performed on Tube Steel and plate material and that the FCAW throughout the end of shift.

See attached pictures below.

On this date, the QA Inspector observed Smith Emery QC Inspector, Ruben Dominguez, performing Visual Testing (VT) on previously completed Fillet and Flare Groove welds, for the Elevated Truss Section Assembly. The QA Inspector observed QC Inspector Dominguez marking up multiple areas of the completed welds, utilizing a soapstone marking device. After marking up the areas, Mr. Dominguez explained that multiple areas of weld undercut, under fill and weld spatter were present. QC Inspector Dominguez explained that these areas, which were marked, were unacceptable per AWS D1.1 2002. The QA Inspector then observed production welder Daniel Grayum, perform grinding activities on the above mentioned areas, utilizing a mechanical grinder. The QA Inspector observed that Mr. Grayum continued these activities throughout the end of the shift.

Frame Assemblies

On this date, the QA Inspector observed Westmont Industries (WMI), production welder Eutimo Lopez (WID # 3035), continuing to perform Flux Core Arc Welding (FCAW) activities for the E2/E3-EB Traveler frames. The QA Inspector observed Mr. Lopez performing the FCAW on previously fit and tack welded Tube Steel (TS) and plate material, for the Frame Assembly identified as B240, per the shop drawings. The QA Inspector randomly observed that Mr. Lopez continued the FCAW throughout the end of the shift.

On this date, the QA Inspector observed WMI production personnel, Mr. Cesar Canales and Mr. Raymundo Anaya continuing to perform layout, in preparation for fitting activities for the E2/E3-Traveler Frame, identified as B240. The QA Inspector observed that the activities were being performed on previously cut to length Tube Steel (TS) and plate material. The QA Inspector observed that the material had been identified previously per the shop drawing Bill of Material list and observed Mr. Canales and Anaya occasionally reference the shop drawings. After referencing the shop drawings, the QA Inspector observed that center line mark were being placed on the material with a soapstone marking device, in preparation for the fitting activities for the material. The QA Inspector observed that Smith-Emery QC Inspector Ruben Dominguez was present, during the above mentioned welding and tacking activities and QC Inspector Dominguez explained that approved Welding Procedure Specifications (WPS's) were being utilized. The QA Inspector randomly observed that the applicable WPS's and copies of the shop drawings, were located near each work station, where the above mentioned FCAW and fitting activities were being performed. QC Inspector Dominguez explained that the in-process welding parameters were randomly verified including voltage, amperage, pre-heat and travel speed and explained that the parameters

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appeared to be in compliance to the applicable WPS and the QA Inspector concurred with Mr. Dominguez.



Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Vance,Sean	Quality Assurance Inspector
Reviewed By:	Edmondson,Fred	QA Reviewer
